

TABLE 18—Continued

	Gas Checker	Air Checker
The heat surface per pass was computed as	3 m ² 556	3 m ² 556
The corrected value for total heating	27,558 sq	4267 m ²
For air* 3 556X 1200 =		45,935 sq ft
The corrected total area of the passes will be:	27,558 sq	19 m ² 44
For gas* 0 0162X 720 =		209.32 sq ft
For air- 0 0162X 1200 =		
The corrected average velocity per second of the	125. 58 sq	
gases will be :		
For gas: 21 92-r-11 664=		
For air* 21 92-r-11 664 =	6.17ft	1 m 64
For waste gases: 28 05 -r- 11 . 664	2 m	5.38ft
.....		
38 18 ^10 44 =		1 m 964
	6.71ft	6.44ft

TABLE 19

	Gas on Gas	Air on Air	Gas on Waste Gas	Air on Waste Gas
The heat transfer, total per				
in B.t.u. is	1484 5900	2 618 10 400	1000 7900	2 516 13 900
Calories per sq m per	0.5797	0.6135	0.7773	0.8239
B.t.u. per sq ft per second	0 214	0 226	0 287	0 306
Average temp, differential				
F	175° 315°	175° 315°	175° 315°	175° 315°
Convection factor to still				
according to curve plotted				
Langmuir's experiments				
164) is calories per m ² per	0 294			
Correction factor for				
/35+u	2.516	2.384	2.803	9 ^RQ
\ 35				
v — velocity in cm per				
Convection corrected for				
in calories per m ² per	0.7397	0.7009	0.8241	0.7553
in B.t.u. per sq ft per	0.273	0.258	0.304	0.278